

The Bureau is indebted to Mr. Robert Morton, Agent in charge of the Oregon Short Line Station at Modena, for his active interest in this matter.

We commend the study of the subject and the study of Mallet's work to those who are planning houses, structures, and other buildings in this country. Our earthquakes are comparatively slight, but still they ought to be considered in every plan for the erection of reliable structures.—C. A.

SIGNS AND WEATHER.

The following extract is from the editorial page of the Ithaca, N. Y., Herald for November 15, 1901, under the above heading:

The Weather Bureau has predicted a hard winter, and the present early snowfall would indicate that the prediction is to be fulfilled. But lake sailors recall a winter several years ago when the Bureau predicted severe weather that did not materialize, and they declare that certain signs and omens show that the winter is to be a mild one.

It is not understood how the editor above quoted could have been so completely misled as to the purpose and work of the United States Weather Bureau.

It has never yet attempted to forecast the weather for a season in advance, and does not anticipate doing so in the near future.

Neither is it aware of any other reputable meteorological service that is attempting such forecasts, with the possible exception of the Indian Meteorological Office, which is investigating the relation between the variations in the number of sun spots and the occurrence of droughts in India.

In general, seasonal forecasts have been undertaken by prophets of the Hicks or Wiggins type only, or by would-be scientists who read the weather from the signs of the moon or of the stars. Many farmers have professed to be able to forecast the character of the coming winter from the thickness of the husks on the ears of corn, and hunters make like forecasts based upon the character of the breast bone of the goose, and the early or late southward migration of birds.

We have every reason to expect that forecasts of this character will continue to be made for many years to come, or at least until the public in general has learned to distinguish between science and superstition, facts and fancy.

Meanwhile the Weather Bureau will devote itself to the study of meteorology and the laws governing the generation and propagation of storms. It will endeavor from day to day to forecast the probable course of such storms as make their appearance upon the weather map, and to foretell the weather changes that will occur in different parts of the country as a result of the storm movements. With these daily forecasts we must be content until the science of meteorology is more fully developed.

The intelligent daily press of our land has been of inestimable value in disseminating the forecasts of the Bureau among the people whom they are intended to benefit. The public will be still further its debtor if it will join hands with the Weather Bureau in an effort to eradicate from the popular mind the many fallacies that have no foundation in fact, but are a survival of traditions handed down from some past generation when scientific knowledge was confined to the few.—H. H. K.

THE EQUINOCTIAL STORM.

The Salem, Oreg., Statesman, for October 1, 1901, quotes the following from the Philadelphia Press:

As a matter of fact for years all the leading meteorologists in the United States Weather Bureau and out of it, in book, article, lecture, and government publications, have set out clearly and distinctly the non-existence of any such thing as an equinoctial storm. Moreover, they have also explained how, owing to the fact that September is the month of maximum development of the West Indian hurricanes, the

belief originated and is from time to time seemingly confirmed by the actual weather facts.

The Statesman then comments upon this paragraph of the Press, as follows:

There has not been a year since Mount Hood first reared its majestic head over its own big empire that has failed to bring a rain storm between the 15th and the 25th of September. * * * This unflinching regularity can be none other than the result of equinoctial disturbances.

Mr. E. A. Beals, Local Forecast Official at Portland, Oreg., has prepared the following tables showing the rainfall each day from September 15 to October 6, inclusive, for the last thirty years—1872 to 1901, inclusive.

Daily rainfall at Portland, Oreg., September 15-25.

Year.	Day of month.										
	15th.	16th.	17th.	18th.	19th.	20th.	21st.	22d.	23d.	24th.	25th.
1872								1.07	0.01		
1873											
1874			0.01							0.01	
1875					0.03						
1876				0.18		0.85	0.04				
1877						0.18			0.01		
1878							0.05	T.	0.97	0.05	T.
1879								0.01	0.01		
1880			0.26			T.		0.26	0.32	T.	
1881			0.40	0.70	0.25		0.01	0.37	0.37	0.22	0.07
1882	0.07		0.01								
1883			0.02	0.33							
1884						T.	0.11				
1885	0.32								0.74	0.19	
1886								0.36	0.30	0.01	0.17
1887				0.43	0.79					0.01	
1888			0.14	0.03	0.84	0.03					
1889						T.	T.	0.41	0.06	0.01	0.01
1890					T.						
1891		0.01	0.05	0.22	0.32		T.	0.07			
1892			T.	T.	T.	0.13		0.53	0.70	0.27	
1893			T.	0.03	0.58	0.16	0.01				
1894	0.02			0.04			T.				0.30
1895	0.01	0.02			0.13	0.03				T.	
1896	0.37								T.		
1897											
1898					0.35		1.27	0.24	T.	T.	
1899											
1900	0.25	0.04	T.		0.42	0.25	T.	T.	0.11		
1901						T.	0.88	0.69	0.25	0.18	0.39

Daily rainfall at Portland, Oreg., September 26 to October 6.

Year.	Day of month.										
	26th.	27th.	28th.	29th.	30th.	1st.	2d.	3d.	4th.	5th.	6th.
1872	0.04							0.22	0.23	0.01	
1873										0.01	
1874											
1875							0.03	0.36			
1876											
1877	0.04	0.51	0.49	0.13		0.95	0.24	0.75	0.50	0.19	0.11
1878	0.04	0.61	0.26	0.60	0.88	0.15	0.01			T.	
1879		0.19	0.56	0.16	0.80	0.04	0.07	0.09	0.22	0.29	0.39
1880						0.01					
1881			T.		0.03			0.26	0.05	T.	0.03
1882					0.02	0.50	0.54	0.10	0.03	0.11	0.50
1883			0.14	0.01	0.03	1.07			0.26	0.35	0.07
1884		T.	0.11	0.69	0.46	0.02			0.16	0.14	0.01
1885		0.06	0.03								
1886									0.02		
1887				0.04	1.17	0.19			0.10	0.13	0.76
1888					0.10	0.03					
1889			T.	0.01	0.75	0.26	0.37	0.01		T.	0.01
1890				T.		0.37	0.08	0.05	0.25	0.27	0.04
1891			0.25	0.55	0.07			0.01			
1892											T.
1893	T.		0.10	0.63			0.03	0.17	0.21	0.06	0.73
1894	0.16	0.09	0.08	0.01	0.03	0.30	0.17	0.09		0.02	
1895						T.	T.				
1896					0.02	0.03	0.03				
1897	T.	0.25	T.	0.08	0.03	0.01					
1898		0.10	0.02	0.26	0.25	0.26	0.15		T.		
1899				0.30	0.37	0.24	0.02				T.
1900					T.		T.	T.	0.05	0.04	T.
1901	0.16	0.05	0.10	0.44		0.17	0.06		0.03	0.26	

A most casual examination of these tables will convince any one that the editor of the Statesman was not conversant with the facts when he penned the above comment. During the last thirty years there have been four years without a measurable amount of rain between the dates he specifies, and in two additional years not over 0.01 inch fell on any one day.